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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,513	10/27/2003	Mitsugu Ogiura	36856.1149	2674

7590 09/30/2004

KEATING & BENNETT, LLP
Suite 312
10400 Eaton Place
Fairfax, VA 22030

EXAMINER

NGUYEN, TAI V

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/694,513	Applicant(s) OGIURA, MITSUGU	
	Examiner Tai Van Nguyen	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/27/03, 18/02/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the invention of Species A, Figure 3A, claim 5 in filed September 01, 2004 is acknowledged.
2. Claims 6-8 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected the invention Species B-D, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on Sep. 01, 2004.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. Following title is suggested: A METHOD FOR MANUFACTURING AN ACCELERATION SENSOR.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al (US 5,118,982).

green sheets (111-114, Fig. 3) made of piezoelectric ceramic, where n is an integer greater than or equal to 1 (see Fig. 1); applying a conductive paste (201) on a surface of at least one of the green sheets at positions corresponding to a center portion and both end portions (151, 152) of individual piezoelectric elements in the longitudinal direction, whereby segmented electrodes are formed for a plurality of piezoelectric elements; applying a conductive paste on surfaces of at least two of the other green sheets so that the conductive paste is led to positions corresponding to ends of each piezoelectric element in the longitudinal direction, whereby lead electrodes are formed for the plurality of piezoelectric elements (16, 17); stacking the green sheets so that the segmented electrode and the lead electrodes are alternately arranged and so that the electrode in the middle in the thickness direction is the segmented electrode (131-134); firing the green sheets to produce a piezoelectric ceramic fired compact which includes a plurality of piezoelectric layers and simultaneously baking the conductive paste (column 10, lines 17-20); forming polarization electrodes on the front (201) and back (202) faces of the piezoelectric fired compact, the polarization electrodes (16, 17) being segmented into positions corresponding to the center portion and both end portions of each piezoelectric element; applying a DC electric field to the polarization electrodes and in between the segmented electrode and the lead electrodes to polarize the piezoelectric ceramic fired compact in the thickness direction so that (column 5, lines 53-55), when an acceleration is applied, charge having the same polarity (16, 17) is extracted from the lead electrodes in the piezoelectric layers on both sides of the lead electrodes and so that the center portion and both end portions of each piezoelectric layer are polarized

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in opposite directions (column 5, lines 56-59), interconnecting the portions of the polarization electrodes or forming continuous electrodes after removing the polarization electrodes, whereby lead electrodes leading to the ends of the piezoelectric element in the longitudinal direction are formed on the front and back faces of the piezoelectric element, cutting the piezoelectric ceramic (column 10, lines 15+) fired compact into individual piezoelectric elements, and forming external electrodes on both end faces of the cut piezoelectric element and connecting the external electrodes and the lead electrode which are formed inside and on the front and back faces of the piezoelectric element (column 6, lines 6-32)..

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tai Van Nguyen whose telephone number is 703-308-1791. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN.
September 24, 2004



A. DEXTER TUGBANG
PRIMARY EXAMINER